

Amendment under 37 CFR §1.111
Application No. 10/568,393
Attorney Docket No. 062072

REMARKS

(1) Claims 1-7 are pending in this application, of which claims 1 and 2 have been amended.

Claims 4-6 were withdrawn from further consideration. Claim 7 has been added added.

(2) The Applicants have discovered erroneously listing the number of the prior art references in the specification. The specification has been amended to correct the number of the prior art references.

(3) Claims 1-3 were rejected under 35 U.S.C. §103(a) as being unpatentable over Görl et al. (U.S. Patent No. 6,433,064) in view of Beppu et al. (U.S. Patent No. 4,551,240).

(i) Claim 1 has been amended. The amendment is supported at page 4, lines 20-24 of the specification. Claim 7 is supported by the results of Example 5 in Table 4.

(ii) Görl et al. teach that the co-coagulation product of silica and rubber is dried in a fluidized bed drier (col. 7, lines 5-10). The particles obtained by the fluidized bed drier taught by Görl et al. do not meet all of the limitations recited in amended claims 1 and 7.

As described in the present specification at page 2, line 27 to page 3, line 3, the powders obtained by the fluidized bed are attached each other in the fluidized bed. The powders

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as obtained are more finely pulverized, and therefore, their particle size distribution becomes broad. Comparative Example 2 at pages 28-29 describes an example using a fluidized bed drier. As described at page 29, lines 12-13, the divided cake was mutually bounded again in the fluidized bed. As listed in Table 5, the values of “D50,” and “P” were outside of the claimed ranges. Note that “P” is the weight ratio of the dried granules within the range of $D50 \pm (D50 \times 0.5)$. Page 20, last lines 4-3.

Moreover, newly added claim 7 recites a sphericity of 0.68. The specificity of Comparative Example 2 was 0.61. *See* Table 5 of the specification. The particles dried by the fluidized bed drier do not meet the sphericity of claim 7.

In light of using the fluidized bed drier, Comparative Example 2 in the specification corresponds to Görl et al. *See* col. 7, lines 5-10.

Please also note that Comparative Example 1 used a box type hot-blast circulating drier (page 28, lines 19-21). The values of “D50,” “P” and “sphericity” of Comparative Example 1 were outside of the ranges of claim 1.

On the other hand, Example 1 used a drier as described in Table 1 (page 25, lines 16-18). The drier can apply shearing force to the cake (page 12, lines 1-2).

As stated by the Examiner, Görl et al. do not teach the quantification of the distribution of particle sizes. The Examiner also states that Görl et al. are silent with respect to the morphology of the rubber particles. In these respects, Comparative Example 2 in the specification shows that the particles obtained by the drying process using the fluidized bed drier as taught by Görl et al. do not meet the claimed limitations. Beppu teaches an apparatus for classifying particulate material, but the apparatus of Beppu does not modify or improve, at least, the sphericity of the particles. Beppu merely classifies the existing particulate material.

(iii) As to the sphericity, the Examiner states that “Görl et al. are silent with respect to the morphology of rubber particles, however, in light of the fact that the particles of the prior art are prepared by the same co-coagulation process, a reasonable basis exists to believe that rubber particles of the prior art are approximately spherical, as recited in the instant claim 2.” However, when comparing with Example 1 (page 25) with Comparative Example 2 (pages 28-29), it is found that the factors to determine the claimed limitations are not by the co-coagulation process but by the drying process. Example 1 used a drier as described in Table 1 (page 25, lines 16-18), whereas Comparative Example 2 used a fluidized bed. Therefore, Görl et al. do not inherently disclose the shpericity as recited. Görl et al. are silent about the morphology of the rubber particles. In particular, the sphericity of claim 7 cannot be obtained even if a fluidized bed drier is used. *See* the results of Comparative Example 2 in Table 5.

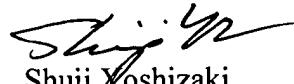
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Therefore, claims 1-3 and 7 are not obvious over the cited references.

(4) In view of above, Applicants submit that the claims, as herein amended, are in condition for allowance. Applicants request such action at an early date. If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned representative at the telephone number indicated below to arrange for an interview to expedite the disposition of this case. If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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